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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/963,244	09/26/2001	Mark Alan Schultz	PU010200	8587

7590 02/26/2007
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EXAMINER

HINDI, NABIL Z

ART UNIT	PAPER NUMBER
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2627

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/26/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

09/963,244

Applicant(s)

SCHULTZ ET AL.

Examiner

NABIL Z. HINDI

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– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 December 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) _____ is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-6,9,10,12-18,21 and 23-28 is/are rejected.
- 7) ☒ Claim(s) 7, 8, 19 AND 20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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In response to applicant's amendment dated 12/26/2006. The following action is taken:

Applicant's representative is respectfully asked to setup a personal interview with the examiner in order to further advance the prosecution of the case and discuss the outstanding rejection.

The following points will be discussed.

The limitations of the independent claims merely read on setting up a "primary defective list"

The limitations of the independent claims merely read on setting up a 'secondary defective list'.

The limitations of the independent claims merely read on test recording data on the medium where data is to be recorded and if defect is detected then data is recorded on an alternative location "data verification".

The limitations of the independent claims merely read on "de-fragging".

Each and every method stated above are well established in the art wherein points one and two go hand in hand with the "skipping method" or the "replacement method".

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3, 5, 9, 10, 12, 13, and 23-28 are rejected under 35 U.S.C. 102(b) as being anticipated by Tokumitsu et al (5513166).

The following interpretation is given to the claimed invention. The independent claims are broadly cited that read on the following:

- 1). The independent claims read on forming the Primary Defective List on the disk (PDL) wherein the disk is accessed before recording data in order to determine if any defects exist on the disk sectors. If a defect is found, then the sector is marked as defective and an alternative sector is assigned to record data.
- 2). The independent claims read on forming the Secondary Defective List (SDL) wherein prior to data being recorded on the disk (temporary defected dust, smudges, fingerprints) is examined, and if a defect is found, then it is registered in a SDL and an alternative sector is assigned to record the data.
- 3). The claim read on defrag or de-fragging wherein errors is detected prior to data recording then allocates a new area for recording the data.
- 4). The independent claims read on pre-test recording data on the disk to determine a defective sectors prior to data recording.

The examiner interprets the limitations of the independent claims as pre-test recording data on the disk prior to data recording to determine a defective sector. The reference in fig 2 and explained in column 8 lines 36-50.on the disk prior to data recording and if a defective sector is found then data is allocated to an alternative sector meeting the claimed invention.

With respect to the limitation of claim 3 see column 8 lines 36-50.

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With respect to the limitation of claim 5. The reference shows the allocation of defective sectors if the defective sectors is permanent (can not be corrected).

With respect to the limitation of claim 9. The reference shows the use of skipping by allocating a defective sector.

With respect to the limitation of claim 10. The reference read on examining any area on the disk (front end).

With respect to the limitation of claim 13. The reference shows a pre-testing on an accessed area (any area) on the disk to determine a defective sector.

With respect to the limitation of claims 23 and 24. The use of a PDL or SDL is inherently present in an optical disk recording. The allocation of defective sectors is register within the PDL or SDL in order to be skipped.

With respect to the limitation of claims 25-28. the examiner interprets any data such as pre-test data is "old" data recorded in order to determine a defective sector. Such limitation is explained in column 8 lines 36-50.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3-6, 9, 10, 12-18, 21 and 23-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al (6788630 in view of Ohara et al (6097683).

The following interpretation is given to the claimed invention. The independent claims are broadly cited that read on the following:

- 1). The independent claims read on forming the Primary Defective List on the disk (PDL) wherein the disk is accessed before recording data in order to determine if any defects exist on the disk sectors. If a defect is found, then the sector is marked as defective and an alternative sector is assigned to record data.
- 2). The independent claims read on forming the Secondary Defective List (SDL) wherein prior to data being recorded on the disk (temporary defected dust, smudges, fingerprints) is examined, and if a defect is found, then it is registered in a SDL and an alternative sector is assigned to record the data.
- 3). The claim read on defrag or de-fragging wherein errors is detected prior to data recording then allocates a new area for recording the data.
- 4). The independent claims read on pre-test recording data on the disk to determine a defective sectors prior to data recording.

The following interpretation is given in making the rejection. The claims read on determining defects (prior to recording new data) on disk sector to be recorded then data is written to allocated sector if defect is found. Thus sectors to be recorded is verified for errors prior to data recording.

. The primary reference shows the use of an optical disk wherein previously recorded data is verified for errors and if the errors exist, then data is recorded on another area of the disk (see column 11 lines 18-41). However the reference does not explicitly disclose the reading of "accessed" sectors prior to recording of new data. The secondary reference discloses determining a defective area on a disk to be recorded prior to or while data is being recorded on the disk (see the abstract and column 2 lines 64-68) for the purpose of preventing data recording on a defective sectors on the disk.

It would have been obvious to one skilled in the art at the time the invention was made to use the teachings of the secondary reference and modify the primary reference. Such modification of determining defective sectors prior to recording of new data is merely within the engineering capability of one skilled in the art in order to save time in determining defective sectors by reading "old" data as opposed to recording then reading the new data. Thus one of ordinary skill in the art would have been motivated to use the teachings of the secondary reference for the purpose of time efficiency in detecting defective sectors.

With respect to the limitation of claim 3-see column 11 lines 15-20.

With respect to the limitations of claims 4 and 16-see column 11 lines 23 and 24.

With respect to the limitations of claims 5 and 17-see column 11 lines 30-35.

With respect to the limitations of claims 6 and 18-see column 11 lines 40 and 41.

With respect to the limitation of claim 9, the claim read on the "skipping method".

With respect to the limitation of claims 10. The use of front end or back end is merely a processor as shown in fig 11.

With respect to the limitation of claim 13. The reference is drawn to an optical disk recording apparatus.

With respect to the limitations of claims 13,14, 21. The use of front end and back end processors are well established in the art as shown in figs 1 and 11.

With respect to the limitations of claims 23 and 24. The reference shows the re-recording of data onto another area of the disk as cited in column 11 line 38.

With respect to the limitations of claims 25-28. The use of "test data" is merely any data. The reference shows the use of verifying the previously written data on the disk as cited in column 11 lines 15-20.

Claims 7, 8, 19 and 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

None of the cited prior art discloses the decreasing of the data spine operation every time the data is selectively read for verification.

Applicant's arguments filed 12/26/06 have been fully considered but they are not persuasive. The examiner's gives the broadest interpretation of the claimed invention. The independent claims read on accessing a portion on the disk to be recorded (the sectors were data is to be recorded), determining if the accessed portion (sectors) are defective, if the sectors are not defective then data is recorded, however if the sectors

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are defective then data is relocated on a non-defective sectors. The basic function of the "primary defective list" and the "secondary defective list" are to examiner an accessed portion on the disk were data is to be recorded, if an error is fund in the accessed portion then, the accessed portion "sectors" are flagged as being defective and the data to be recorded is allocated to a non-defective sectors. As far as the reference in fig 2 shows (5513166), the reference shows an accessed portion is checked for defects were new data is to be recorded (recorded old data is read out), if the block is defective step 63 then a corrective steps are taken steps 64, 69 and 70 meeting the claimed invention. Applicant's argument drawn to the reference not showing "new data to be recorded is not recorded on the accessed portion to be defective". **Applicant's representative is respectfully asked to provide an argument of whey such limitation does not read on the well established 'skipping method' or "replacement method" during defects detection on the disk.** Since the defective block is detected and flagged as being defective then it is a logical to one skilled in the art that no data is to be recorded on a defective block. The reference (55131660) shows that when a defective block is detected step 69 then the new data is located to an alternative block were no defected are present. Applicant's emphases on the references not showing the limitation "prior to recording new data" is interpreted by the examiner as any data that is not yet recorded on the disk, however the just recorded data on the disk is interpreted as old data that is being verified.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication should be directed to **NABIL Z. HINDI** at telephone number (571) 272-7618.


NABIL HINDI
PRIMARY EXAMINER
GROUP 2500